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FOLLOW-UP OF ELEMENTARY FRENCH PROGRAM ON TV, AN EXPERIMENTAL PROGRAM.

BY- TARRANT, WARREN J.

SCHENECTADY CITY SCHOOL DISTRICT, N.Y.

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ELEVEN THIRD-GRADE CLASSES IN SCHENECTADY, N.Y., WATCHED A 15-MINUTE TELEVISION PROGRAM IN ELEMENTARY FRENCH TWICE A WEEK DURING THE SCHOOL YEAR. TO ANALYZE THE EFFECTIVENESS OF DIFFERENT TEACHERS PROVIDING THE FOLLOW-UP INSTRUCTION OF THE TV PROGRAMS, FOUR GROUPS OF STUDENTS WERE ASSIGNED TO TEACHERS RANGING FROM NATIVE FRENCH WITH CONSIDERABLE TEACHING EXPERIENCE TO AN AMERICAN IN-SERVICE TRAINEE WITH VERY LIMITED COMMAND OF THE LANGUAGE. ALTHOUGH IQ RECORDS WERE COMPARED WITH RESULTS OF THE LANGUAGE TEST ADMINISTERED AT THE END OF THE YEAR, FREQUENCY AND REGULARITY OF THE FOLLOW-UP INSTRUCTION APPEARED AMONG FACTORS OF PRIME IMPORTANCE TO ACHIEVEMENT. GIRLS SEEMED MORE RECEPTIVE THAN BOYS THOUGH DIFFERENT MATERIAL MIGHT HAVE STIMULATED GREATER MOTIVATION. A TEST SAMPLING THE FOLLOWING SEPTEMBER INDICATED AN ENCOURAGING AMOUNT OF RETENTION. ANALYTICAL TABLES APPEAR THROUGHOUT AND IN THE THREE APPENDIXES. (GJ)

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FOLLOW-UP OF ELEMENTARY FRENCH PROGRAM ON TV

AN EXPERIMENTAL PROGRAM

Conducted By

The City School District of Schenectady

Robert E. Murray, Superintendent

with State Aid granted by the University
of the State of New York, The State Education
Department under the Provisions of Chapter 930,
Section 3602, SUB. DIV. 14, Laws of 1958.

Principal Investigator: Warren J. Tarrant

1961-62

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FOLLOW-UP OF ELEMENTARY FRENCH PROGRAM ON TV

An Experimental Program conducted by the Schenectady School District under a grant by the University of the State of New York, The State Education Department, under the provisions of Chapter 930, Section 3602, Subdivision 14, Laws of 1958.

A. Statement of the Problem under study

To examine the relative effectiveness of teachers providing follow-up instruction of two fifteen minute weekly televised French lessons in grade three.

Four groups were finally identified for study:

- A - Pupils taught by a special French teacher with native or near-native command of the language. All had received special training and had between four and five years experience. (3 classes)
- B - Pupils taught by classroom teachers who have a good working knowledge of French, who have received in-service training, and who teach French to their own children along with the common branch subjects. All are experienced teachers. (3 classes)
- C - Pupils taught by classroom teachers with the same qualifications, but who go into the classrooms of other teachers in the same building. (3 classes) (Group B-3 and C-3 were taught by the same teacher.)
- D - Pupils taught by teachers in their second year in the French program during their in-service training course.

B. Description of the Year's Work

(1) The program of instruction.

- (a) Materials: Instruction is based on "Parlons Francais," First Year, (videotape edition) with Mrs. Anne Slack, developed by the Modern Language Project, Boston; Teachers' Guide published by Heath-deRochemont Corporation. This program provides two fifteen minute televised lessons per week which were broadcast on time donated by WRGB-TV to the Mohawk-Hudson Council for Educational Television.
- (b) Classroom Follow-Up. Each class receives, in addition to the two televised lessons, two fifteen minute lessons with a teacher. There is one exception to this; Group C-3 which will be mentioned later). In addition to the minimum of two weekly quarter hour lessons, teachers in Group B are in a position to use French incidentally in their classroom and may from time to time give additional instruction. This is not possible in any except Group B and in Group D-1.

(2) The Research Design

Selection of groups for testing. The choice of A group teachers was relatively simple; among the six specialists available, the senior member was eliminated in order that she might act as a consultant on procedures and test construction. The least experienced (one year only) was also eliminated.

Teachers in B and C group were also easily selected; there were just six classes in these categories.

Members of the "D" group presented greater difficulties. Many potential teachers were unable to participate because of in-school situations; several had great reluctance to work with the first year program because it involved watching two television programs whereas a fourth grade or second year group required only one viewing period. Three groups were secured although one was extremely small. Unfortunately, the one man teacher working in the program found during the course of the year that he could not continue and dropped out of in-service training after his third semester, leaving two groups in "D" category.

Teachers were most willing to have their children tested. They did want to know the purposes of the project and the use to which test results were to be put. They were interested in the amount of time to be used in testing and whether children would be subjected to undue strain. In short, they were cooperative and wanted to be informed about the project. They were not concerned with the nature of the test but were nevertheless assured that it would cover materials in the teachers' guide and that it would be administered in a manner inkeeping with televised lessons.

Principals furnished records of IQ tests for all groups being considered for testing. Only those pupils whose records showed Kuhlman-Anderson tests were to be used.

Test Construction. It was decided to construct a test in six parts, four of which could be administered to an entire group, two of which would require individual, oral questioning and response.

Part I was to be concerned with word recognition and would involve selection of an appropriate picture from a group of three. Although there are limitations to this sort of testing activity, it was believed to be of value on two scores: it is sufficiently uncomplicated to enable a child to perform easily and it covers a rather large amount of material -- both in selection of the correct response and in the elimination of the incorrect response. Therefore all possible responses were potentially correct; that is, they had been covered in the lessons. The majority of items covered objects which belonged in the same group (clothing, members of a family, animals, parts of a house) or those which had been taught in a single situation.

(18 items, 2 sample items)

Part II asked children to write down the figures as ten numbers were given in French (between one and twenty-nine). (10 items, 1 sample)

Part III was devoted to telling time. Pupils were to choose one of three clocks as the time was said in French. Numbers used were not those used in part two and one item was: Il est midi (it is noon) not involving a number. (5 items, 1 sample item).

Part IV was again a multiple choice asking pupils to select one of three possible pictures in response to a complete sentence. All were things which had been taught. Care was taken to make incorrect responses sufficiently similar in meaning so that a response to only an object would not guarantee getting a right answer. (15 items, 1 sample).

Part V required the child to repeat eight sentences after hearing each two times. One point was deducted if the rhythm and intonation of the sentence were incorrectly reproduced; points were given for reproduction of sounds easily confused or not found in English. (French "u" in initial, medial, and terminal position; "r" nasal sounds, "-eur", "-gn-", "le" and "la". All material was familiar, but not all sentences were exactly as they had been taught.

Part VI sought to obtain answers to ten questions. A child who from his answer showed that he understood the question but was unable to formulate a correct answer was given one point; a fully correct answer was worth two points.

Pictures used in parts one and three were drawn in Paris and submitted in pencil sketches for approval after which the revised drawings were done in final form. Only one picture was unusable -- a lollipop was discovered to be larger than the American variety in the final form (it resembled a popsicle). Since both of the other responses were possible, an alternate sentence was used.

Test Administration. Certain problems were encountered in securing persons to test the youngsters. It was obvious that competence in the language alone was not enough to qualify a person to administer the tests; some experience and a good deal of security in dealing with children were necessary. Attempts to secure the services of former teachers who had earlier expressed interest in the project did not materialize, largely because of family responsibilities. (Another difficulty was the unusually high absentee rate because of illness of teachers and children during the spring.)

Four women were eventually located who had the necessary qualifications. They were familiarized with the test and the use of the tape recorder and one with the most experience with children began the testing, observed by the remaining three. All had had experience with children, although one had worked principally in nursery schools with some experience teaching French in a private school and another had worked with boys and girls in summer programs. In every case command of the language was superior.

Upon completion of the testing, the test administrator scored and recorded the results.

It was at this point that it became evident that the total scores were heavily weighted in certain areas and that a final score would not give a true picture of the year's emphasis. Accordingly, a scale was worked out to bring the scores in individual parts into a pattern more nearly like the amount of time spent on various activities in the year's work. The scale was as follows:

	<u>Raw Score</u>	<u>x</u>	<u>Weighted Scores</u>
Part I - Words	18	6	108
Part II - Numbers	10	4	40
Part III - Time	5	4	20
Part IV - Sentences	15	8	120
Part V - Reproducing Sentences	30	1	30
Part VI - Questions	20	12	240
Totals	98	-	558

Thus the most difficult portion of the test -- that part in which children were asked to formulate a response to a given question became the most important single element. It was felt that this was logical because it combined all factors previously tested and required the child to supply additional information in French from his own store of knowledge.

The first four parts of the test were administered to an entire group whether or not the children were to be used in the research project. A short rest was given following completion of Part I.

Parts V and VI were individually administered in a room apart from the child's own classroom. Administrators were asked to set the children at ease as quickly as possible and to record marks inconspicuously.

Although it had first been planned to administer Parts I through IV using taped instructions, a previous experience with sixth graders in which many children became hopelessly "mixed up" and "lost" made it seem that the ability to follow directions was being given too high a value. It was further decided that with our limited number of cases, it would be disastrous to have to eliminate children who became lost and who could not be checked and set straight as the tape recorder moved relentlessly forward. It was felt that re-testing would invalidate results. Therefore, procedures similar to those with which children were already familiar in their achievement tests were followed in the first four parts.

For group identification, the median IQ was used, averages of individual parts were computed as well as the average total group scores.

Although not planned as a part of the project, the group portion of the test was administered to some pupils in September. This will be covered in the appendix.

C. Analysis of the data.

The Groups and their teachers.

Group A-1. Twenty-three children in the class of whom only thirteen could be used (absence of IQ and absence at the time tests were given)
Median IQ - 103.

Room teacher is experienced but knows no French and is unable to make use of French.

TV reception is regular and is of good quality. No acoustical problems.

Specialist: Bi-lingual, experienced teacher with language teaching experience prior to entering this system, in her fifth year with this program.

Group A-2. Twenty-five children in the class, of whom twenty-three made up the group. Median IQ - 111.

Room teacher is one of the senior members of the staff, knows no French, is unable, therefore, to use the language incidentally.

TV reception is excellent and viewing is regular. Children do not view in their own room but go to a neighboring classroom where they view with E-2 (Group (about sixty in all)).

Specialist: Although her major language is German, she has good command of the language and an excellent accent for teaching. Excellent grounding in theory. Two years experience teaching English in Germany, five years in her present position.

Group A-3. Thirty children in the class of whom nineteen were used.
Median IQ - 98.

Room teacher is experienced and is highly supportive of the program (the room put on a French fair at the school's open house). She knows no French and does not attempt to use it incidentally with the children.

TV reception is generally good and viewed regularly. Because they go to a special AV room, they occasionally are slightly late in getting into the program.

Specialist: Bi-lingual. One year of experience before taking this position which she has held for three years. European educated.

Group B-1. Twenty-one children of whom nineteen were used. Median IQ-102.

Room teacher does her own French. She is experienced and was involved in the early stages of the program. Her command of the language is good; she has a good (although somewhat American) accent. She uses French incidentally throughout the day. Teacher attempts to do fifteen minutes of French per day with the group.

TV reception is good, viewing is regular. A teacher stated that the girls are attentive but the boys are restless.

Group B-2. Group of twenty-eight children of whom nineteen were used.
Median IQ - 107.

Room teacher does her own French and has a good command of the language. In the program from its beginning. At the beginning of the year she teaches French every day for fifteen minutes, but decreases to two or three times per week after the children are well launched. French is used incidentally every day.

TV reception is good and children view it regularly. No acoustical problems.

Group B-3. Twenty-eight children in the class of whom twenty-two were used. Median IQ - 107.

The teacher has a good command of the language and a good accent. She is an experienced teacher and has worked with the program since its earliest days. She uses French incidentally every day. Lessons are given with regularity. On some days the fifteen minute period is lengthened.

TV reception is usually very good, although reception has been difficult occasionally. Children view in an AV room with half of the children from another class.

Group C-1. Twenty-three children in the class of whom fifteen were used.
Median IQ - 107.

The French is taught by a second grade teacher who comes for the TV presentation while the teacher assigned to this third grade goes to her class. She has an extremely careful accent and has worked long with the program.

Viewing is regular - reception is good. The two fifteen minute follow-up lessons are conducted immediately after the television lessons. The room teacher knows no French, so the language is not used incidentally throughout the day.

Group C-2. A class of twenty children of whom eighteen were used.
Median IQ - 101.

Teacher comes from a 4th grade while the room teacher goes into her own class. Her French is fluent although her accent is Americanized. Both French teacher and room teacher have been in the system for many years and the French teacher has been very much involved in the program in its early days, working one year as a French specialist.

Viewing is regular. Reception is good. Twice weekly fifteen minute lessons follow immediately the televised lesson. Since the room teacher knows no French, there is no incidental use throughout the day.

Group C-3. Class of twenty-five children of whom sixteen were used.
Median IQ - 102.

This group was taught by the teacher in Group B-3 above. TV is viewed regularly and the reception is generally good. Half of the children in this room view with the girls of the teacher in B-3 above, half with another 3rd grade. They do this alternately - the boys go one week with the teacher in B-3 while the girls go to the other 3rd grade and switch the following week. Follow-up is not regular as there are seldom two class lessons given. The usual procedure is for a thirty minute classroom lesson per week although when special events, such as holidays, PTA programs come, class does not receive instruction during the week of the special events. There is no incidental use of French in the classroom.

Group D-1. This is a 3/4 combination group with ten 3rd graders of whom nine were used. The median IQ - 100.

The room teacher had completed her first year of in-service training and teaching French at the beginning of the year, although she had observed French being taught by a specialist for several years previously. Her French was learned from Italian/Swiss parents and reveals Italian influence. She is an experienced classroom teacher.

TV is viewed regularly and reception is generally good. Although the teacher states that "once in a while it is quite bad." Because of the mixed group the third graders gather around the television which is set up in a corner of the room while the 4th graders do other things. Lessons vary in length from fifteen to twenty minutes and in addition children have a short period every morning which they share with the 4th grade. French is used incidentally through the day for routine matters, such as leaving the room, getting ready for gym, etc.

Group D-2. A class of twenty-one children of whom seventeen were used.
Median IQ - 103.

French is taught by a 4th grade teacher who had completed her first year of in-service training by the beginning of the school year. She had completed one year of classroom teaching and one year teaching French to her own grade. Her French is extremely limited although she has had many years of instruction.

Televised lessons were viewed regularly in the children's own room but they were joined by the children in A-2 group. Reception is excellent and viewing is regular.

Classroom lessons are twice weekly, are conducted regularly, and last from twenty to twenty-five minutes. The children in this group have had a change in their classroom teacher during the year because of the sudden death of the first teacher. First teacher had been in the system for many years; the second teacher had a half year of experience. Since neither knew French, the language was not used incidentally in the classroom.

Test results arranged by groups and by rank among groups are to be found in the appendix.

Let us first examine the ranking of IQ in relation to average total scores:

Median IQ	Rank	Average of Total Scores
A-2	1	B-3
B-2	2	D-1
B-3	3	C-1
C-1	4	C-2
C-3	5	A-1
A-1	6	A-3
D-2	7	D-2
B-1	8	B-2
C-2	9	A-2
D-1	10	B-1
A-3	11	C-3

One is struck by the drop of Group A-2 from first rank in IQ to number nine in measured achievement and by the drop of B-2 in a shared 2/3/4 IQ ranking to eighth position in achievement. Both groups had good reception, both room teachers were experienced, one group was taught by a specialist, the other by their own competent room teacher. A-2 was at a disadvantage in viewing in that they had to go into the room of D-2 to watch the program in an over-large group, and yet the A-2 group had the advantage of an experienced specialist with competence in the language, whereas the D-2 group which held its rank well in achievement was taught by a non-specialist who was in her second year of training and whose French was far from perfect. Looking at the range of IQ's in each group:

A-2 - - - - High 119 - - - - Low 95 (with 2 below 100)
 B-2 - - - - High 115 - - - - Low 97 (with 1 below 100)

Thus neither group seems to be handicapped by an unusually large range with many group members concentrated near the bottom.

One can speculate on the suitability of the material for these particular children. Was the program not sufficiently challenging? Were the materials too naive to interest the children? A question to be investigated is implied here: would these children have been more comfortable had some written work been introduced?

The next low is C-3 which went from fifth in IQ rank to eleventh in achievement. Here we are on less speculative ground, particularly when we compare them with group B-3.

	IQ rank	Average of total scores
B-3	2/3/4	1
C-3	5	11.

Although the IQ range shows a difference (B-3 having a 116 to 97 range, with 3 below 100; C-3 showing a high of 109 and a low of 79 with 7 scores below 100) the fact remains that both groups were taught by the same teacher. What of the conditions? B-3 was taught by its own room teacher on a regular schedule with incidental use of French. C-3 on the other hand was irregularly taught; its viewing conditions were changed from week to week. Thus in spite of the difference in group potential frequency and regularity of instruction would appear to be of prime importance to achievement.

The fourth group to move down the rating scale in terms of its potential was B-1. Eighth in Median IQ rank, it dropped to tenth on the achievement scale. Here we have the teacher's statement that the boys in the group resisted the television lessons although the girls received it well. Breaking this group down to boys and girls we find:

	Med IQ	Total Average Score
Entire Group	102	306.2
Girls	103	347.9
Boys	98-99	268.6

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Examining the whole group is revealing:

Girls	IQ	Total Score	Rank
1	112	448	1
2	111	414	3
3	104	275	8
4	103	461	2
5	103	299	7
6	103	222	9
7	102	320	6
8	99	327	5
9	87	365	4

Boys	IQ	Total Score	Rank
1	113	414	2
2	106	218	6
3	106	188	8
4	99	261	5
5	99	208	7
6	98	333	3
7	92	272	4
8	92	182	9
9	92	175	10
10	90	435	1

It is obvious that the boys in this group had a considerably lower potential than the girls, nevertheless one must ask the question concerning the appeal of materials to boys. They frequently expressed to their teacher that the program was "sissy." This coupled with their low potential may explain their poor achievement.

Among the gains, D-1 is the most startling with its tenth rank in Median IQ and second rank in achievement. Are there conditions peculiar to this group which may have influenced its achievement in a positive way?

The group was small, only ten children of whom nine were used in the study (the tenth child being absent during the testing period). The third graders as part of a split three-four grade shared a practice period with the fourth grade. This may conceivably have encouraged them to put forth their best efforts. The daily practice period was in addition to the regular fifteen or twenty minute bi-weekly lesson and TV lessons. The conclusion reached above when comparing B-3 and C-3 that frequency and regularity influence achievement in a positive way would seem to be borne out.

Almost as dramatic was the rise of the C-2 group. It should be remembered that this teacher served as a specialist for one year and has been in the program from its very early stages. Conditions of regularity of instruction and viewing were carefully maintained. (See also in appendix the retention figures of this group).

B-3 having already been mentioned, we pass to A-3, eleventh in Median IQ, which rose to sixth rank in achievement. The native teacher may be a factor but so too may be the supportive and encouraging role played by the long range planning for the "French Fair." Although it is impossible to estimate the amount of extra time spent on French and French background in this group, the language classes were certainly given an importance in the curriculum and a high degree of integration into the total program followed by the class in the areas of art, music, language arts, and social studies.

One of the questions which this study hoped to answer was the relative efficiency of teachers in the categories previously mentioned. No pattern emerged. Of the groups taught by specialists (A), one rose in relation to its IQ, one very nearly maintained its position, one dropped.

In the case of experienced classroom teachers doing French in their own classrooms (B), one group rose and two dropped.

With those experienced classroom teachers giving French lessons in rooms other than their own (C) one group rose, one maintained its position, one dropped.

Among the teachers new to the program (D), one group rose, one maintained its position.

Nor can intelligence be the sole index of achievement. Rather such factors as frequency, regularity of instruction, motivation, making French a part of the total program, pupil attitude would seem to be deciding factors in children's achievement.

Who among the three groups (A, B, C) best achieves these conditions? The classroom teacher integrating French into the total program. She knows her children best and has the greatest opportunity to work with

them. Taking the averages of A, B, C, & D scores (although D, since it cannot be considered a typical group must be eliminated) we find:

Children taught by teachers in	Average in Total Scores
A Group	340.7
B Group	362.8
C Group	330.4
D Group	369.7
All Children	348.8

For our purposes then, the trained classroom teacher working with her own children would seem to achieve the best results.

On children's mastery of the various aspects of language learning, comprehension was understandably greater than the ability to use the language or mastery of its sound system. The following table illustrates this:

Part	Possible	Range	Difference	Median
I I Word Comprehension	108	99.5-68.8	30.7	78.4
II Numbers	40	36.0-13.5	22.5	28.4
III Time	20	20.0-14.1	15.9	16.7
IV Sentence comprehension	120	111.2-74.5	36.8	88.6
V Sound reproduction	30	24.1-12.2	11.9	17.7
VI Answering Questions	240	157.2-63.8	93.5	109.6
Totals	558	433.3-249.1	184.2	354.5

Attention must be given in curriculum construction and in teaching practice to go beyond comprehension of words, to get into the ability to use words and forms in a variety of contexts rather than in the drill situation which involves patterns and words in a particular situation which may become so related to the utterance that it is useless as soon as it appears out of the familiar context or in a different context. Locally, we have been aware of this need and have tried to revamp our materials. The results of this study emphasize the need for further work.

Likewise the need for increased individual response as opposed to choral response is emphasized. Opportunities for response in a large group are limited; the experience of group D-1 may be an indication of a direction in which we should be working. Perhaps means can be devised for increased use of the tape recorder at the elementary level.

Finally we need to re-examine our materials as to their suitability to appeal to children in this age group. Although the series of programs used was geared to fourth graders, there is a possibility that a more "sophisticated" content may be desired. There is also the distressing possibility that we are not demanding enough of the children and that the challenge of greater difficulty would bring about more encouraging results.

Group Designation	IQ - Median IQ	I - World Recognition	II - Numbers	III - Telling Time	IV - Sentence Recognition	V - Reproducing Sounds	VI - Answering Questions	TOTAL
A-1	103	81.2	32.0	19.4	88.6	22.9	118.2	362.3
A-2	111	70.4	29.0	17.6	84.9	15.2	100.7	317.8
A-3	98	78.0	36.0	17.8	92.2	21.8	108.7	354.5
B-1	102	68.8	23.0	16.7	75.8	17.3	104.2	306.2
B-2	107	78.0	22.7	16.3	88.5	15.9	109.6	331.0
B-3	107	99.5	28.4	18.7	111.3	20.0	155.5	433.3
C-1	107	78.4	31.7	15.7	88.6	24.1	140.6	379.1
C-2	101	90.0	26.0	16.0	100.0	21.8	111.3	364.7
C-3	104	70.5	13.5	14.8	74.5	12.2	63.8	249.1
D-1	100	98.7	27.6	20.0	109.3	17.7	157.3	430.4
D-2	103	80.4	30.8	14.1	93.6	14.6	103.8	337.4
Possible		108	40	20	120	30	240	558

APPENDIX I

TEST SCORES IN ORDER OF RANK

	IQ	I	II	III	IV	V	VI	TOTAL
1	A-2 111	B-3 99.5	A-3 36.0	D-1 20.0	B-3 111.3	C-1 24.1	D-1 157.3	B-3 433.3
2	B-2	D-1 98.7	A-1 32.0	A-1 19.4	D-1 109.3	A-1 22.9	B-3 155.5	D-1 430.4
3	B-3 107	C-2 90.0	C-1 31.7	B-3 18.7	C-2 100.0	A-3	C-1 140.6	C-1 379.1
4	C-1	A-1 81.2	D-2 30.8	A-3 17.8	D-2 93.6	C-2	A-1 118.2	C-2 364.7
5	C-3 104	D-2 80.4	A-2 29.0	A-2 17.6	A-3 92.2	B-3 20.0	C-2 111.3	A-1 362.3
6	A-1	C-1 78.4	B-3 28.4	B-1 16.7	A-1	D-1 17.7	B-2 109.6	A-3 354.5
7	D-2	A-3 78.0	D-1 27.6	B-2 16.3	C-1	B-1 17.3	A-3 108.7	D-2 337.4
8	B-1 102	B-2	C-2 26.0	C-2 16.0	B-2 88.5	B-2 15.9	B-1 104.2	B-2 331.0
9	C-2 101	C-3 70.5	B-1 23.4	C-1 15.7	A-2 84.9	A-2 15.2	D-2 103.8	A-2 317.8
10	D-1 100	A-2 70.4	B-2 22.7	C-3 14.8	B-1 75.8	D-2 14.6	A-2 100.7	B-1 306.2
11	A-3 98	B-1 68.8	C-3 13.5	D-2 14.1	C-2 74.5	C-3 12.2	C-3 63.8	C-3 249.1

APPENDIX II

APPENDIX 3

In September during the first few days of school, it was possible to administer the group test only to children in three of the groups: A-1, B-3, and C-2. Although much has been said about children's inability to remember over the long summer vacation, we had never been able to study this. This was in a small way an attempt to test retention.

The conditions of testing were the same, although no attempt was made to weight the scores and it was not possible in the beginning days to administer individual tests. Thus there was a possible perfect score of 48. The gains and losses are shown below:

Group	# Cases*	# Showing Gain	No Change	# Showing Loss	Net Point Change
A-1	21	1	1	19	-80
B-3	23	3	0	20	-103
C-2	16	8	1	7	+19

* This number does not necessarily correspond to the number of cases used in the major study since no comparison with IQ was intended.

These are encouraging results and would lead one to believe that much more is remembered than the heretofore thought. It might be suspected that those in group C-2 had done some summer work in French. According to the teacher this is not the case and she did not begin French lessons before the children were tested.